Mr. Antonio Carrillo Azteca Milling, L. P. P. O. Box 23550 Evansville, IN 47724

Re: 163-16010

First Administrative Amendment to Part 70 No.: T 163-7995-00107

#### Dear Mr. Carrillo:

Azteca Milling, L. P. was issued a Part 70 permit on February 28, 2001 for a stationary wet corn milling operation producing corn flour at a maximum rate of 160,000 metric tons per year. A letter requesting changes to this permit was received on August 26, 2002. The changes requested relate to modifications of existing emission units, as described below:

- (1) Addition of a heat recovery system prior to the atmospheric discharge of the first drying line cyclones;
- (2) Installation of a grain scalper system to increase the mechanical capacity of the grain receiving pit, while keeping the annual grain receiving capacity of the plant unchanged;
- (3) Modification of the flour loading system, including the installation of a three way valve to improve loading conditions, and the installation of a vent return line to a filtering device which exhausts indoors.

The modifications described above will not increase the potential to emit (PTE) of particulate matter from the pre-existing emission units. The increase in the receiving capacity does not increase potential to emit because the PTE is based upon an outlet grain loading rate. This loading rate is not dependent upon the capacity of the loading bin. Using the grain loading information produces a more accurate answer. If AP-42 emission factors were used, then one would have to factor in the rating of the factor into the PTE determination. That factor imposes vagueness on the PTE because it does not take into account the distance or length of any conveyor. Therefore, the grain loading info is a more accurate assessment.

The requested modification also includes the following:

(4) Addition of a bulk truck loading system to replace the existing rail loading system, equipped with a pneumatic filtering device exhausting indoors.

In Part 70 permit no. T163-7995-00107, the Office of Air Quality had agreed that cartridge filters would be considered as an integral part of the process. Taking that into consideration, the potential to emit of the new bulk truck loading system has a potential to emit of particulate matter of less than the 5 tons per year threshold for Minor Source Modifications. The baghouses, cartridge filters, and cyclones were considered as an integral part of the milling operation because:

(a) These pieces of equipment are "filters/collectors" which collect and return raw material and

(b) The process could not be operated without the dust collectors also being in operation since 100% of the raw materials collected by the dust collectors are recycled to ensure that all of the raw materials are used in the process.

This determination of the control equipment being integral to the process was made in permit no. 163-7995 issued on February 28, 2001.

According to 326 IAC 2-7-11(a)(8), an administrative amendment can be used to "revise descriptive information where the revision will not trigger a new applicable requirement or violate a permit term". The requested modifications meet this requirement, therefore, pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as follows (strikeout to show deletions and **bold** to show additions):

- (1) The facility description in Section A.2 is amended as follows:
  - (b) one (1) corn receiving pit, identified as Corn Receiving Pit C, constructed in 1995, located in an enclosed building, with a maximum capacity of 80 203 metric tons per hour, equipped with a grain scapler to remove foreign material from the corn, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
  - (e) one (1) drying line, identified as C101, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 1, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat particulate matter control, exhausting through one (1) stack (ID Stack 10);
  - (f) one (1) drying line, identified as C102, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 2, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat particulate matter control, exhausting through one (1) stack (ID Stack 110);
  - (r) one (1) rail loading system, constructed in 1995, with a maximum capacity of 21.77 metric tons per hour, with a three way valve leading to three flexible lines, using a pneumatic filtering device cartridge filter (ID B10) for particulate matter control, exhausting indoors through one (1) stack (ID Stack 49).
  - (s) one (1) truck loading system, constructed in 2002, sharing a pneumatic filtering device with the rail loading system for particulate matter control, exhausting indoors.
- (2) The facility description in Section D.2 is amended as follows:
  - (b) one (1) corn receiving pit, identified as Corn Receiving Pit C, constructed in 1995, located in an enclosed building, with a maximum capacity of 80 203 metric tons per hour, equipped with a grain scapler to remove foreign material from the corn, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
  - (e) one (1) drying line, identified as C101, constructed in 1995, with a maximum capacity of

9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 1, Drying First Circuit Cyclone", **for particulate** 

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matter control, and heat recovery system and wet scrubbing for recovering residual heat particulate matter control, exhausting through one (1) stack (ID Stack 10);

(f) one (1) drying line, identified as C102, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 2, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat particulate matter control, exhausting through one (1) stack (ID Stack 110);

. . . . . . .

- (r) one (1) rail loading system, constructed in 1995, with a maximum capacity of 21.77 metric tons per hour, with a three way valve leading to three flexible lines, using a pneumatic filtering device -cartridge filter (ID B10) for particulate matter control, exhausting indoors through one (1) stack (ID Stack 49).
- (s) one (1) truck loading system, constructed in 2002, sharing a pneumatic filtering device with the rail loading system for particulate matter control, exhausting indoors.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima Moulik, at (800) 451-6027, press 0 and ask for Madhurima Moulik or extension 3-0868, or dial (317) 233-0868.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

#### Attachments

mm

cc: File - Vanderburgh County

U.S. EPA, Region V

Vanderburgh County Health Department

Evansville EPA

Southwest Regional Office

Air Compliance Section Inspector - Scott Anslinger

Compliance Data Section - Karen Nowak

Administrative and Development

Technical Support and Modeling - Michele Boner

# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### Azteca Milling, L.P. 15700 Highway 41 North Evansville, Indiana 47711

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T163-7995-00107		
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:	

First Significant Permit Modification No. 163-15980 Issuance Date: Pending

First Administrative Amendment No. 163-16010	Pages Modified: 5, 6, 30, 31
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

Azteca Milling, L. P. Evansville, Indiana Permit Reviewer: TE/EVP

**SECTION A** 

1<sup>st</sup> Administrative Amendment No: 163-16010 Amended By: Madhurima D. Moulik Page 5 of 42

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#### **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

#### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary wet corn milling operation producing corn flour at a maximum rate of 160,000 metric tons per year.

Responsible Official: Antonio Carrillo

Source Address: 15700 Highway 41 North, Evansville, Indiana 47711

Mailing Address: P.O. Box 23550, Evansville, Indiana 47724

SIC Code: 2046

County Location: Vanderburgh

Source Location Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD Rules;

## A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) two (2) natural gas-fired steam boilers, identified as Unit 1 Boiler and Unit 2 Boiler, constructed in 1995 and 1996 respectively, each rated at 10.46 million (MM) British thermal units (Btu) per hour, each exhausting through one (1) stack (ID Stacks 7 and 107), respectively;
- (b) one (1) corn receiving pit, identified as Corn Receiving Pit C, constructed in 1995, located in an enclosed building, with a maximum capacity of 203 metric tons per hour, equipped with a grain scapler to remove foreign material from the corn, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
- (c) two (2) corn screeners, identified as Unit 1 Screener and Unit 2 Screener, constructed in 1995 and 1996 respectively, each with a maximum capacity of 30 metric tons per hour, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
- (d) one (1) lime bin system, constructed in 1995, with a maximum throughput capacity of 22.5 metric tons per hour, using a baghouse (ID B2) for particulate matter control, exhausting through one (1) stack (ID Stack 9);
- (e) one (1) drying line, identified as C101, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 1, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat, exhausting through one (1) stack (ID Stack 10);

(f) one (1) drying line, identified as C102, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 2, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat, exhausting through one (1) stack (ID Stack 110);

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- (g) one (1) drying line, identified as C201, constructed in 1995, with a maximum capacity of
   9.13 metric tons per hour, with a cyclone, identified as "Unit 1, Drying Second Circuit
   Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 11);
- (h) one (1) drying line, identified as C202, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Unit 2, Drying Second Circuit Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 111);
- (i) one (1) flour cooler, identified as FC1, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Flour Cooler Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 12);
- (j) one (1) flour cooler, identified as FC2, constructed 1996, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Flour Cooler Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 112);
- (k) one (1) flour sifter system, identified as FS1, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B3) for particulate matter control, exhausting through one (1) stack (ID Stack 13);
- (I) one (1) flour sifter system, identified as FS2, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B4) for particulate matter control, exhausting through one (1) stack (ID Stack 113);
- (m) one (1) milled and dried flour unit, identified as MDF1, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B5) for particulate matter control, exhausting through one (1) stack (ID Stack 14);
- (n) one (1) milled and dried flour unit, identified as MDF2, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B6) for particulate matter control, exhausting through one (1) stack (ID Stack 114);
- (o) one (1) corn skin separator, identified as CSS1, constructed in 1995, with a maximum capacity of 0.647 ton per hour, using a baghouse (ID B8) for particulate matter control, exhausting through one (1) stack (ID Stack 40);
- (p) one (1) pair of corn skin separators, identified as CSS2N and CSS2S, constructed in 1996, each with a maximum capacity of 0.323 ton per hour, each using a baghouse (ID B9N and B9S, respectively) for particulate matter control, each exhausting through one (1) stack (ID Stacks 140N and 140S, respectively);
- (q) one (1) corn skin storage system, constructed in 1995, with a maximum capacity of 1.294 metric tons per hour, using a baghouse (ID B9) for PM control, exhausting through one (1) stack (ID Stack 15); and
- (r) one (1) rail loading system, constructed in 1995, with a maximum capacity of 21.77 metric tons per hour, with a three way valve leading to three flexible lines, using a pneumatic

filtering device (ID B10) for particulate matter control, exhausting indoors (ID Stack 49);

(s) one (1) truck loading system, constructed in 2002, sharing a pneumatic filtering device with the rail loading system for particulate matter control, exhausting indoors.

Note: The previous construction permit (CP-163-4433-00107) issued to this source on June 30, 1995, included six (6) grain dryers, three (3) corn receiving pits and corn scalping. The source has stated that construction of the grain dryers, two (2) of the corn receiving pits, and the corn scalpers never occurred and the project was postponed indefinitely.

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#### **SECTION D.2**

#### **FACILITY OPERATION CONDITIONS**

#### Facility Description [326 IAC 2-7-5(15)]:

- (b) one (1) corn receiving pit, identified as Corn Receiving Pit C, constructed in 1995, located in an enclosed building, with a maximum capacity of 203 metric tons per hour, equipped with a grain scapler to remove foreign material from the corn, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
- (c) two (2) corn screeners, identified as Unit 1 Screener and Unit 2 Screener, each with a maximum capacity of 30 metric tons per hour, with a baghouse (ID B1) for particulate matter control, exhausting through one (1) stack (ID Stack 6);
- (d) one (1) lime bin system, with a maximum throughput capacity of 22.5 metric tons per hour, using a baghouse (ID B2) for particulate matter control, exhausting through one (1) stack (ID Stack 9);
- (e) one (1) drying line, identified as C101, constructed in 1995, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 1, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat, exhausting through one (1) stack (ID Stack 10);
- (f) one (1) drying line, identified as C102, constructed in 1996, with a maximum capacity of 9.13 metric tons per hour, with one (1) natural gas-fired flour dryer, rated at 18 MMBtu per hour, with a cyclone, identified as "Unit 2, Drying First Circuit Cyclone", for particulate matter control, and heat recovery system and wet scrubbing for recovering residual heat, exhausting through one (1) stack (ID Stack 110);
- (g) one (1) drying line, identified as C201, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Unit 1, Drying Second Circuit Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 11);
- (h) one (1) drying line, identified as C202, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Unit 2, Drying Second Circuit Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 111);
- (i) one (1) flour cooler, identified as FC1, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Flour Cooler Cyclone", for particulate matter control, exhausting through one (1) stack (ID Stack 12);
- (j) one (1) flour cooler, identified as FC2, with a maximum capacity of 9.13 metric tons per hour, with a cyclone, identified as "Flour Cooler Cyclone", for particulate matter control, exhausting

#### through one (1) stack (ID Stack 112)

- (k) one (1) flour sifter system, identified as FS1, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B3) for particulate matter control, exhausting through one (1) stack (ID Stack 13);
- (I) one (1) flour sifter system, identified as FS2, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B4) for particulate matter control, exhausting through one (1) stack (ID Stack 113);
- (m) one (1) milled and dried flour unit, identified as MDF1, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B5) for particulate matter control, exhausting through one (1) stack (ID Stack 14);

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- (n) one (1) milled and dried flour unit, identified as MDF2, with a maximum capacity of 9.13 metric tons per hour, using a baghouse (ID B6) for particulate matter control, exhausting through one (1) stack (ID Stack 114);
- (o) one (1) corn skin separator, identified as CSS1, with a maximum capacity of 0.647 ton per hour, using a baghouse (ID B8) for particulate matter control, exhausting through one (1) stack (ID Stack 40);
- (p) one (1) pair of corn skin separators, identified as CSS2N and CSS2S, each with a maximum capacity of 0.323 ton per hour, each using a baghouse (ID B9N and B9S, respectively) for particulate matter control, each exhausting through one (1) stack (ID Stacks 140N and 140S, respectively);
- (q) one (1) corn skin storage system, with a maximum capacity of 1.294 metric tons per hour, using a baghouse (ID B9) for PM control, exhausting through one (1) stack (ID Stack 15); and
- (r) one (1) rail loading system, constructed in 1995, with a maximum capacity of 21.77 metric tons per hour, with a three way valve leading to three flexible lines, using a pneumatic filtering device (ID B10) for particulate matter control, exhausting indoors (ID Stack 49);
- (s) one (1) truck loading system, constructed in 2002, sharing a pneumatic filtering device with the rail loading system for particulate matter control, exhausting indoors.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 New Source Performance Standard for Grain Elevators [326 IAC 12] [40 CFR 60.300 - 60.304, Subpart DD]

Pursuant to 40 CFR 60.302, the following shall apply:

- (a) The particulate matter emissions from the corn screeners, both of which exhaust through baghouse B1, shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 0.26 pounds per hour at an exhaust flow rate of 3,000 acfm.
- (b) The visible emissions from the corn screeners shall not exhibit greater than 0 percent opacity.

- (c) The particulate matter emissions from the corn skin storage system, which exhausts through baghouse B9, shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 0.34 pounds per hour at an exhaust flow rate of 4,000 acfm.
- (d) The visible emissions from the corn skin storage system shall not exhibit greater than 0 percent opacity.
- (e) The fugitive emissions from the railcar unloading station shall not exhibit greater than 5 percent opacity.

#### D.2.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2(a)(Non-attainment Area Particulate Limitations), particulate matter (PM) emissions from the facilities listed below shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). The equivalent pound per hour emission rates are calculated as follows: